

The amendments to the claims were originally made in an Amendment Under Article 34 which was filed 17 November 2000 at the European Patent Office during the prosecution of the PCT application. It is unclear whether these amendments were entered during the PCT phase of the prosecution.

During the PCT phase of the prosecution of the present application, claim 12 was stated not to be inventive since the wording of the claim was broad enough to cover some prior art. Applicants did not specifically notice anything in the cited Miller et al. reference which would anticipate or make obvious claim 12, but the Miller et al. reference cites an article by Wagner et al. (*Proc. Natl. Acad. Sci. USA* 87:3410-2414 (1990)) which teaches covalently binding transferrin to either a DNA-binding protein protamine or to polylysine and then binding this to DNA, either through the specific binding of the DNA-binding protein or by an electrostatic charge between polylysine and the DNA. The Wagner et al. reference therefore teaches transferrin which is indirectly bound to DNA because the transferrin was first covalently bound to a second molecule and then this second molecule was non-covalently bound to DNA. All of the claims have been amended by inserting into all of the independent claims (claims 1, 17 and 19) the term “directly”. This amendment means that the ligand (e.g., transferrin) interacts directly with the virus and not through some intermediate compound which in turn interacts with the virus. The vector of the Wagner et al. reference would not fall within the amended claims since it requires covalently attaching the ligand (transferrin) to an intermediate compound which in turn binds to the nucleic acid. The application teaches a direct interaction between ligand and virus. For example, Example 1 (page 12) teaches preparation of a transferrin-adenovirus admixture by simply mixing and incubating transferrin and the adenovirus. Furthermore, the drawbacks of the Wagner et al. type of vector are discussed in the application, first directly on pages 2-3 (citing a later Wagner et al. reference) and then indirectly on page 10, lines 8-12, where the drawbacks of using chemical conjugation are set forth.

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Attachments: Marked-Up Copy of Amended Claims

Amended Claims: Version with markings to show changes made

1 (amended). A vector for delivery of a virus to a target cell within a host animal, comprising a cell-targeting ligand non-covalently bound directly to said virus.

17 (amended). A method for preparing a vector for the systemic delivery of a virus to a target cell, said vector comprising a cell-targeting ligand non-covalently bound to said virus, comprising mixing said cell-targeting ligand with said virus in an aqueous medium, whereby said ligand non-covalently binds directly to said virus.

19 (amended). A method for providing a therapeutic agent to an animal in need thereof, comprising administering to said animal a therapeutically effective amount of a vector for delivery of a virus to a target cell within said animal, said vector comprising a cell-targeting ligand non-covalently bound directly to said virus.

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